Global Fixed Income Program Review

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Global Fixed Income

November 14, 2011



Vision of Global Fixed Income

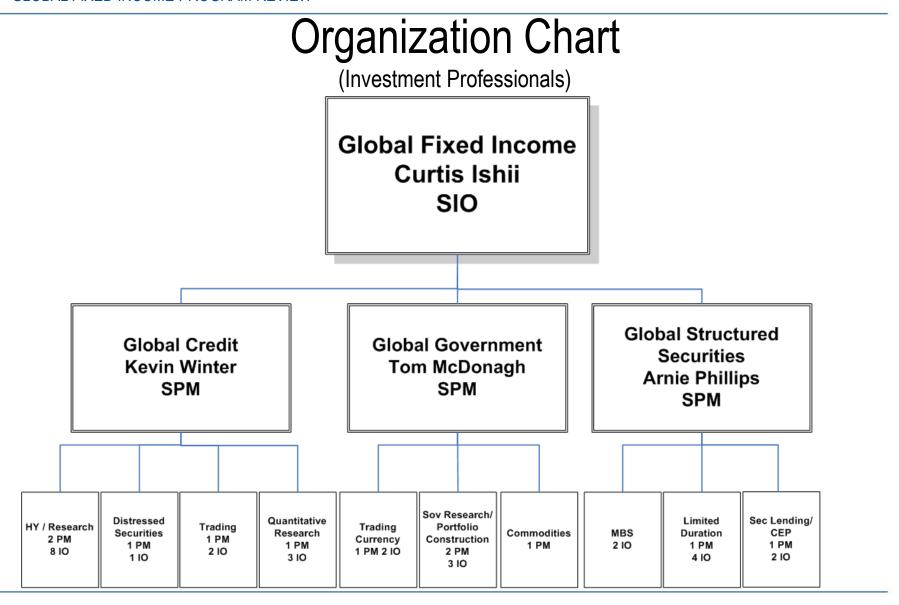
- In-source when it makes sense
- Continue with existing strategy as 25-year history validates process
- Continue to attract, retain, and develop staff



Purpose of the Program Review

- Summary of Performance for Global Fixed Income
- Changes in the Risk Profile of Global Fixed Income
- Review of other programs managed by Global Fixed Income
- Initiatives for the next 12 months







Global Fixed Income Characteristics

(as of 9/30/11)

GFI represents 19% or \$42 billion of the CalPERS total fund

- 17% Domestic Fixed Income (DFI) composition
 - US Governments
 - Investment Grade Corporate Credit
 - Structured Securities- mortgage backed securities
 - Sovereigns- IG International Government
 - Cash
 - Opportunistic
- 2% International Fixed Income
- < 1% Special Investment- MHLP



Basic Strategies for Fixed Income

- Long term investor that focuses on shifting risks within an economic cycle
 - Acknowledge difficulty in calling absolute bottoms or tops
 - Fundamentally driven approach with a proven framework
 - Acknowledgement that PMs' bias is to be early; thus, PMs average into a trade or strategy
 - CalPERS long term focus, averaging in, and lack of leverage allows the portfolio to withstand short term volatility and forced selling at inopportune times



Basic Strategies for Fixed Income

- Cost of internal management is small at 1-3 bp, in-source if skill sets are available in-house
 - Estimated cost of external management is 20-30 bp
- Key assumption of internal management is the ability to attract and retain investment professionals. This is done through the following:
 - Creating an environment focused on investing and managing assets
 - Trying to pay competitive compensation packages
 - Leveraging on CalPERS reputation as a large, sophisticated investor

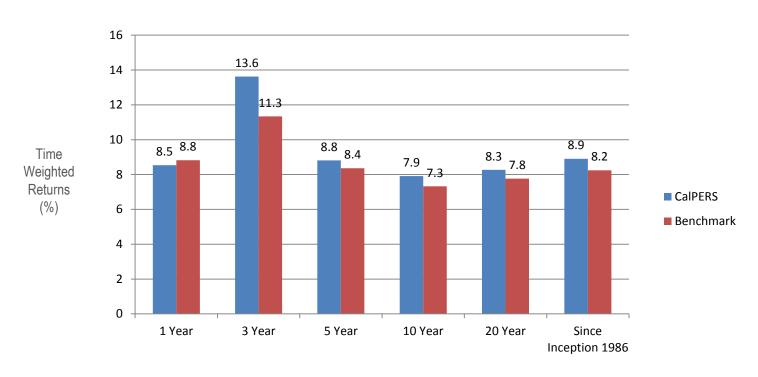
Long-Term Performance Validates Fixed Income Strategy

- Since inception date of existing management (June 1986),
 Domestic Fixed Income has created positive excess return
 (alpha) in 19 out of 26 fiscal years and an average annual
 alpha of +55 basis points (bp)
- 38 professionals (traders, analysts, and portfolio managers) in a number of FI markets
 - Provides market intelligence for FI and total fund
- As of 9/30/11, 89% of funds managed internally

Global Fixed Income Performance

(U.S. and International as of 9/30/11)

Good Long Term Results



91% US Fixed Income, 9% International Fixed Income



Global Fixed Income Detailed Composition

(as of 9/30/11)

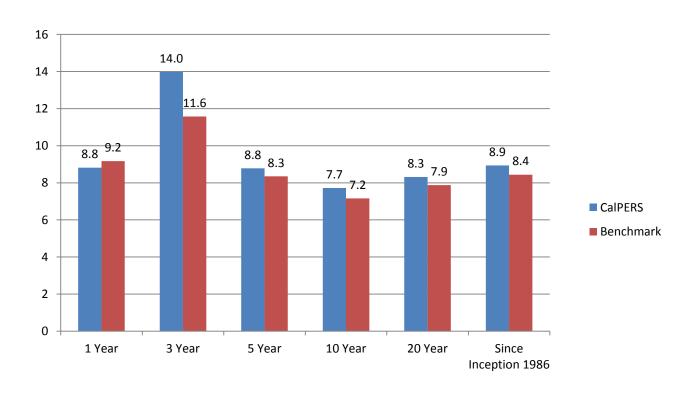
		%NAV		
	Market Value (\$ bn)	CalPERS	Bench	Active
Domestic Fixed Income	\$38.3	90%	89%	+1%
U.S. Governments	14.5	34	35	-1
Credit	8.8	21	21	О
Structured Securities	11.4	27	27	C
Sovereigns	0.9	2	3	-1
Opportunistic		5	3	+2
High Yield Credit	1.7	4	3	N/A
Non-Credit Opportunistic	0.6	1	0	N/A
Cash Securities	0.4	1	0	+1
International Fixed Income	3.6	9	11	-2
Special Investments	0.6	1	0	+1
Total Global Fixed Income	\$42.5			

Domestic Fixed Income Performance

(as of 9/30/11)

Good Long Term Results

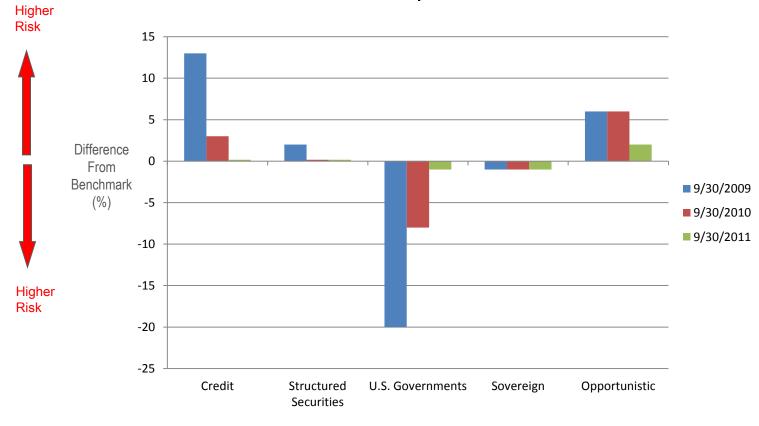




Sector Risks: Smaller Gaps Equal Lower Risk

(as of 09/30/11)

Fixed Income Sectors Gap Relative to the Index



International Fixed Income

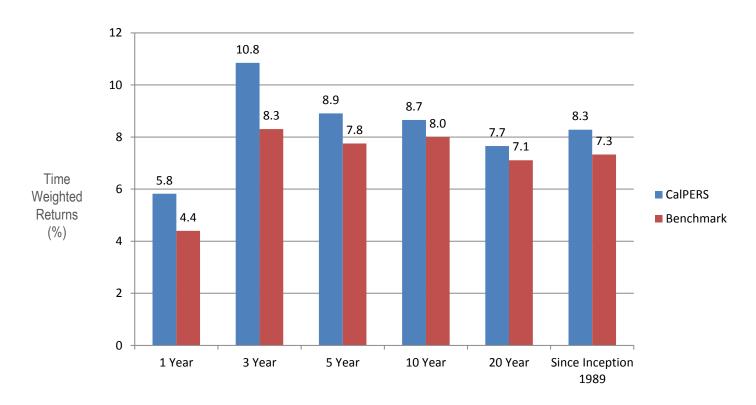
- 2% or \$3.6 billion of CalPERS total fund as of 09/30/11
- Managed by 4 external managers
 - PIMCO
 - Baring Asset Management
 - Rogge Global Partners
 - Alliance Bernstein



International Fixed Income Performance

(as of 9/30/11)

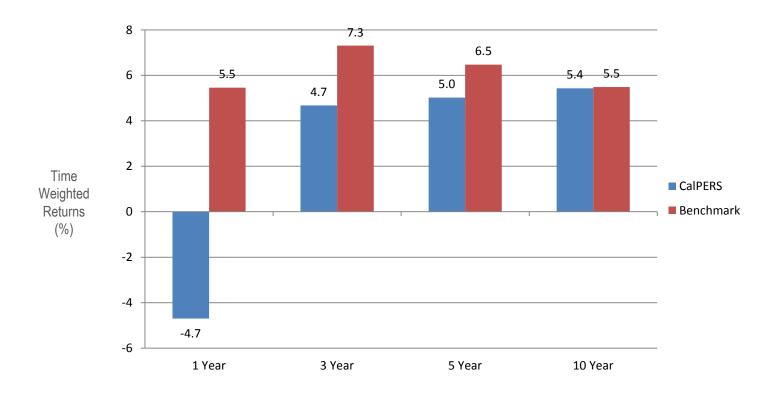
Good Short and Long Term Results



Special Investments – MHLP

(as of 9/30/11)

Poor Results Validate Elimination of Program





Other Programs Managed by Global Fixed Income

(as of 9/30/11)

Total amount of assets for other programs managed by Global Fixed Income represents \$44.4 billion

- Inflation
 - Inflation-Linked Bonds Program (\$4.8 bn)
 - Commodities Program (\$2.2 bn)
- Affiliate Funds
 - Treasury Inflation Protected Securities Program (\$0.5 bn)
 - Affiliate Internal High Yield Program (\$0.3 bn)
 - Barclays Aggregate Program (\$0.7 bn)
- Liquidity
 - U.S. Treasuries 2-10 Year Program (\$6.2 bn)
 - Short Term Program (\$1.5 bn)
- Sec. Lending-Related
 - Sec. Lending Program
 - Sec. Lending Collateral (including the Limited Duration Program) (\$11.9 bn)
- Other
 - Currency Overlay Program (\$11.8 bn)
 - Credit Enhancement Program (\$1.5 bn)
 - Synthetic Enhanced Equity Program (\$3.0 bn)



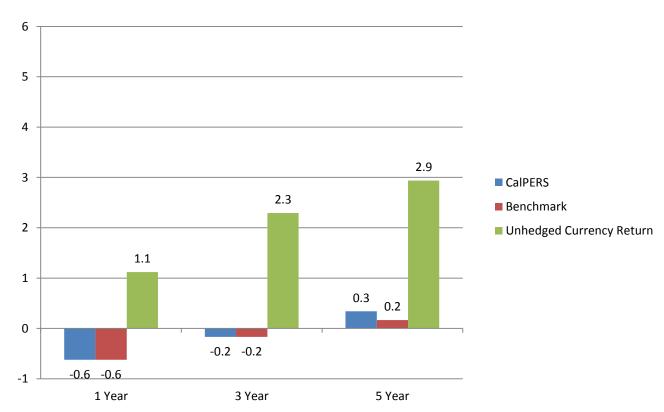
Currency Overlay Program Inflation-Linked Bonds Program Commodities Program Treasury Inflation Protected Securities Program U.S. Treasuries 2-10 Year Program

Thomas McDonagh SPM, Global Government

Currency Overlay Performance

(as of 9/30/11)

Benchmark Returns

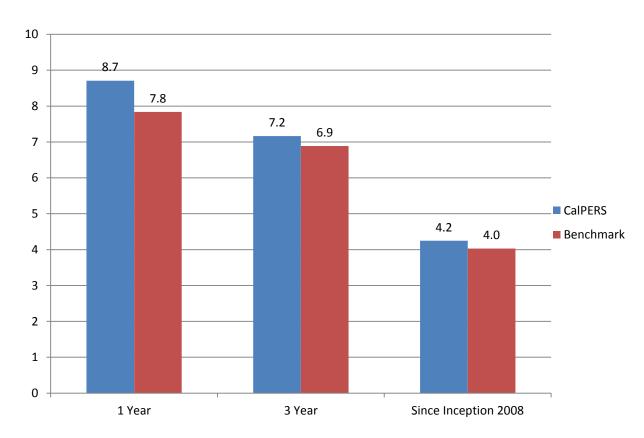


Time Weighted Returns (%)

Inflation-Linked Bonds Performance

(as of 9/30/11)

Good Short and Long Term Results





Time Weighted

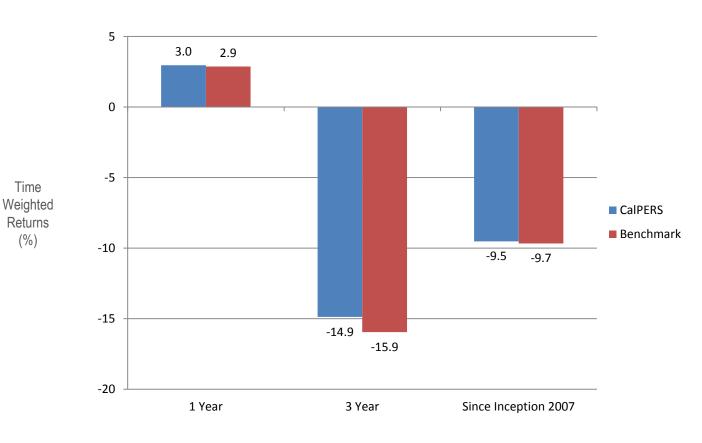
Returns

(%)

Commodities Performance

(as of 9/30/11)

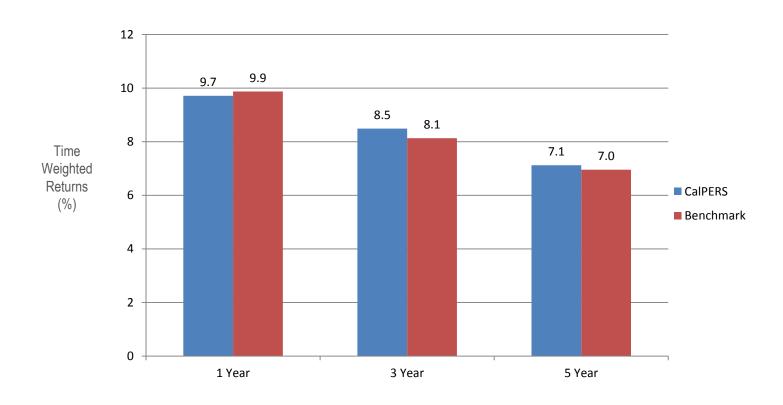
Good Short and Long Term Relative Results



Treasury Inflation Protected Securities Performance

(as of 9/30/11)

Good Long Term Results

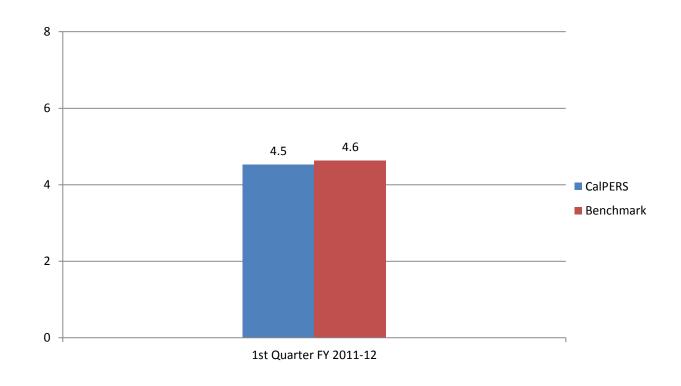


U.S. Treasuries 2-10 Year Performance

(as of 9/30/11)

Limited Data





Inception date of fund is 07/01/2011



Short Term Program Sec. Lending Program Sec. Lending Collateral (including the Limited Duration Program) Credit Enhancement Program Synthetic Enhanced Equity Program

Arnie Phillips
SPM, Global Structured Securities

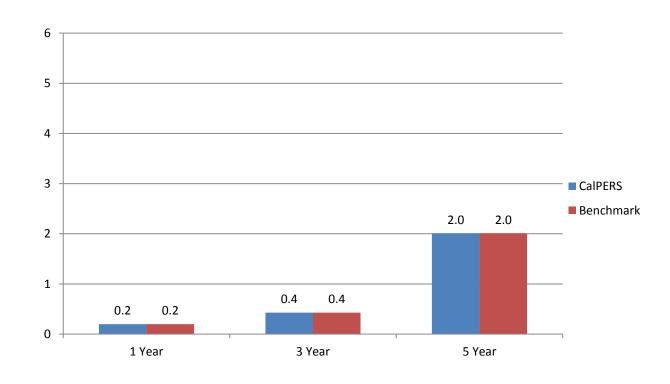


Short Term Performance

(as of 9/30/11)

Benchmark Returns





Sec. Lending Program Earnings

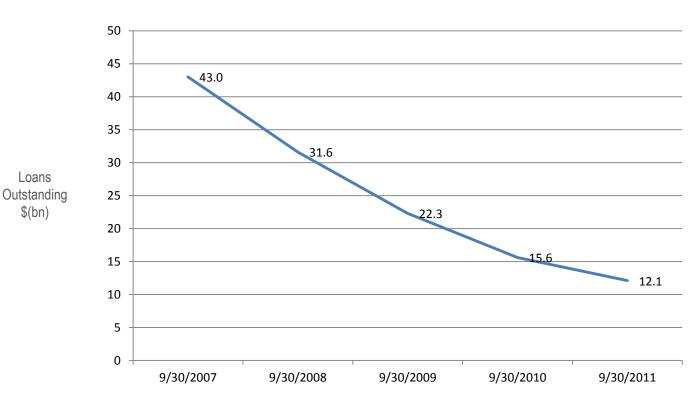
(as of 9/30/11)

	Sec. Lending Loan Income (\$ mm)	Sec. Lending Reinvestment Income (\$ mm)	SIV Realized Loses (\$ mm)	Total Earnings (\$ mm)
Oct 2006 - Sept 2007	\$126.8	\$16.9	\$0.0	\$143.7
Oct 2007 - Sept 2008	110.6	(481.3)	0.0	(370.7)
Oct 2008 - Sept 2009	88.5	164.3	(225.0)	27.8
Oct 2009 - Sept 2010	87.6	436.7	(553.9)	(29.6)
Oct 2010 - Sept 2011	92.1	93.5	0.0	185.6
5 Yr Totals	\$505.6	\$230.1	(\$778.9)	(\$43.2)

Sec. Lending Program

(continued)

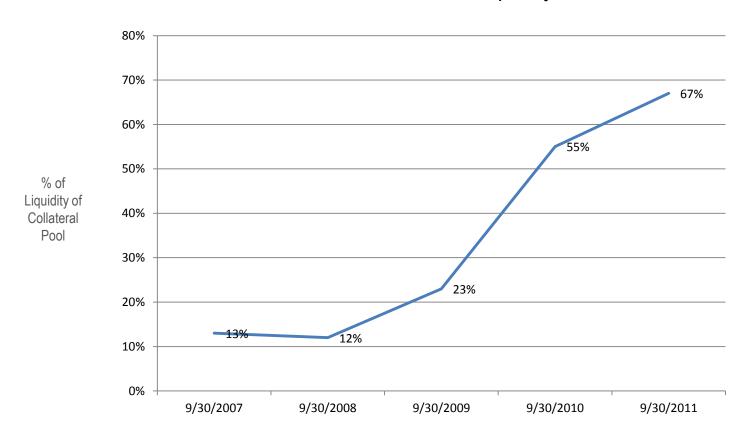
Part of Overall Risk Reduction





Sec. Lending Collateral (including the Limited Duration Program)

Increase CalPERS Liquidity

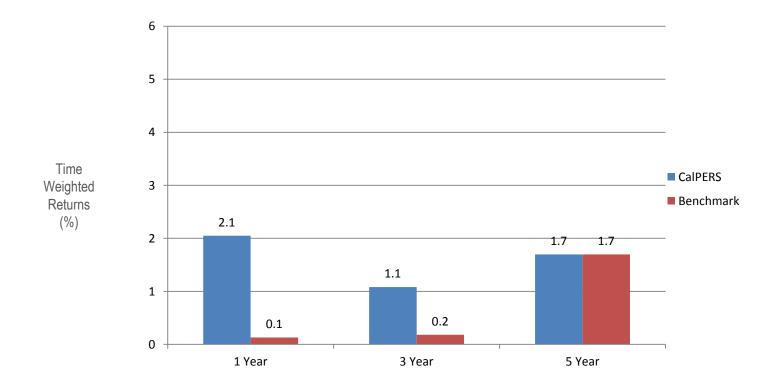


Note: Liquidity defined as one-month or less maturity



Sec. Lending Collateral (including the Limited Duration Program) Performance (as of 9/30/11)

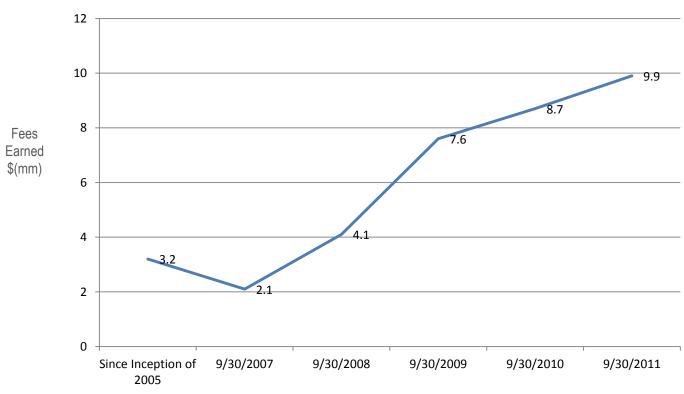
Good Short and Long Term Results





Credit Enhancement Program

Currently in More Favorable Market





Synthetic Enhanced Equity Program

- Began June 2009
- Uses limited duration fixed income securities and overlay of equity derivatives
- Return enhancement from fixed income results in excess of cash returns
- Initial value was \$1.5 billion, currently \$3.0 billion
- Cumulative return through 09/30/11 is +36.3% versus +25.0% domestic equity benchmark
- 11.3% excess return = more than \$170 million value added

Barclays Aggregate Program Affiliate Internal High Yield Program External Managers

Kevin Winter SPM, Global Credit

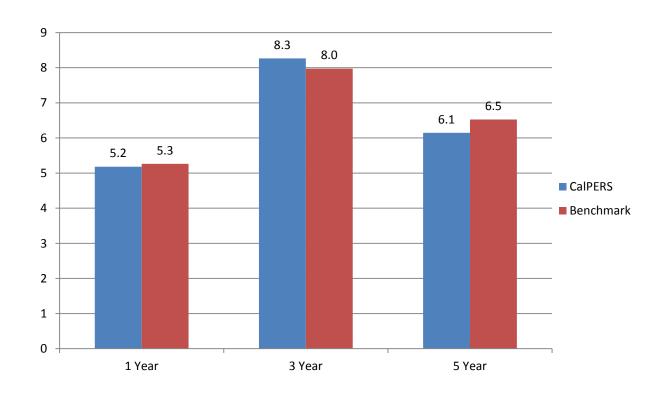


Barclays Aggregate Performance

(as of 9/30/11)

Mixed Results

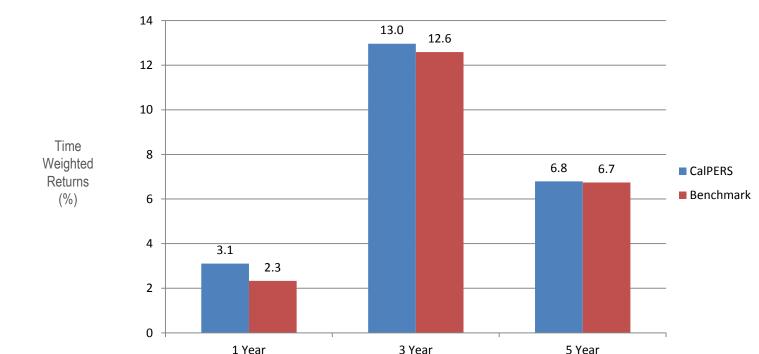




Affiliate Internal High Yield Performance

(as of 9/30/11)

Good Short and Long Term Results





External Managers

- Purpose
 - Provide skill sets not available internally
 - Supplement information, knowledge, and skills that internal staff can convert to alpha for internal programs
- Utilized in Currency Overlay, International Fixed Income, and High Yield
- All contracts can be terminated within 30 days notice



External Managers – Action Item

- Recommend approval for renewal
 - External managers enhance Global Fixed Income's diversification and alpha objectives
 - This recommendation for renewal includes high yield bond and loan managers that are not currently managing money (TCW, ING, Putnam, Columbia LL, JP Morgan, Artio Global)
 - See ATTACHMENT 2 for details of individual external manager performance returns



Keys for Internal Management of Fixed Income

- Attracting investment professionals
 - ➤ Hired 2 PMs: Commodities and Sovereign with an average of 20 years of industry experience each
 - > Based on recent history, it takes about an average of 10 months to fill one PM position
 - ➤ Hired 6 IOs as either a credit, quantitative, or structured security analyst/trader with an average of 7 years of industry experience each
 - > Based on recent history, it takes about an average of 7 months to fill one IO position
- Retaining key staff
 - > 3 SPMs and 1 SIO have an average of 20 years of CalPERS employment each
 - > FI has 38 investment professionals with an average of 14 years of industry experience each. 60% of this experience is with CalPERS
- Training
 - Need to invest in sending staff to training: at conferences, with our external managers, and with broker/dealers



Priorities for the Next 12 Months

- First Priority Manage Global FI to create targeted alpha by continuing the existing and proven long term fundamental focused style
- Portfolio initiatives
 - Subject to IC approval, internally manage \$1 billion of international FI
 - Continue to in-source short term funds primarily in the Global Equity and Sec. Lending Programs
 - Continue to explore portable alpha opportunities
 - Graduate currency alpha pilot program and increase funding
- Governance initiatives in conjunction with Corporate Governance
 - Work with SEC to make changes in bondholders rights
 - Work with governmental institutions on mortgage reform
 - Work with governmental institutions on rating agency reform



Priorities for the Next 12 Months

(Continued)

- Total Fund initiatives
 - ➤ Begin constructing a total fund attribution system to supplement the one developed for Global Fixed Income
 - Working with Asset Allocation/Risk Management and Investment Servicing Units to enhance investment operational infrastructure
- Attract and retain talent
 - > Per search firms, 90% initial turndown rate due to compensation for PMs and above
 - > Based on recent history, it takes about an average of 10 months to fill one PM position
 - > Based on recent history, it takes about an average of 7 months to fill one IO position
 - > Fill economist/analyst PM and 3 IOs
 - Through the budget process get additional IOs for research and trading
 - > Set aside time and money to invest in staff development

Summary

- Good relative and absolute returns for GFI
- \$8 billion In-Sourcing or expanding of existing portfolios
- Continuing the strategy of long term fundamental focus and alpha creation

